IN THE CLAIMS:

1. (Currently Amended) ~~A control module~~ An arrangement comprising:

an ATM switch fabric;

a controller associated with said ATM switch fabric for controlling operation of said ATM switch fabric,

a first I/O module, coupled to said ATM switch fabric and having a framer to which a protection line is connected;

a second I/O module, coupled to said ATM and having a framer to which a service line is connected, said second I/O module being physically distinct from said first I/O module; and

~~a memory element responsive to user-provided directives that stores a last-provided user-specified directive;~~

a decision logic module that, in response to ~~for accepting or rejecting an~~ applied stimulus, where said stimulus is taken from a set including said user-specified directives, state condition information of a service line, and state condition information of a protection line, develops signals that flow to said framer in said first I/O module and to said second I/O module to direct said service line to be in an active state or in a standby state and, correspondingly, to direct said protection line to be in a standby state or in an active state;

~~a service line register;~~

~~a protection line register;~~

~~a first processing module responsive to said decision logic module which, when said decision logic module accepts an applied stimulus, sets or resets selected bits in said service line register and protection line register; and~~

~~a second processing module responsive to value of number in said service line register and to value of number in said protection line register, for developing a decision as to whether to specify the service line to be in a standby mode and the protection line to be in an active mode, or vice versa.~~

2. (Currently Amended) The ~~control module~~ arrangement of claim 1 wherein said ~~first processing~~ decision logic module~~, said second processing modules, and said~~

~~decision logic module are embodied in a stored program controlled processor and software stored in an associated memory~~ implemented within said controller.

3. **(Currently Amended)** The ~~arrangement~~ of claim 1 where said decision logic module is implemented within said first I/O module, within said second I/O module, partly within said first I/O module and partly within said second I/O module ~~control module of claim 2 wherein said memory element is contained in said associated memory~~.

4. **(Original)** The control module of claim 1 wherein said user-specified directive are taken from a set comprising a lock-out directive, a forced switch directive, a manual switch directive, or a release directive.

5. **(Original)** The control module of claim 1 where said, state condition information of a protection line or a service line corresponds to a degraded condition or a failed condition in said protection line or a service line, respectively.

6. **(Currently Amended)** The ~~control module~~ arrangement of claim 1 wherein said second ~~processing module carries out said decision and converts the mode of said service line and the mode of said protection line to an standby stand and a active state, respectively, or vice versa, in accordance with said decision.~~ I/O modules is structurally similar to said first I/O module.

7. **(Deleted)**

8. **(Deleted)** .

9. **(Deleted)** .

10. **(Currently Amended)** The arrangement of claim ~~9~~ 1 wherein said signals that flow to ~~second processing module closes a buffer in~~ said framer in said first I/O module close the last-mentioned framer when ~~said~~ a decision by said decision logic module is to place said protection line in a standby mode.

11. **(Currently Amended)** The arrangement of claim ~~9~~ 1 wherein said <u>signals</u> <u>that flow to</u> ~~second processing module opens a buffer~~ in said framer <u>in said first I/O</u> <u>module close the last-mentioned framer</u> when ~~said~~ <u>a</u> decision <u>by said decision logic</u> <u>module</u> is to place said protection line in an active mode.

12. **(Deleted)**

13. **(Deleted)**

14. **(Deleted)**

15. **(Deleted)**

16. **(Deleted)**

17. **(Deleted)**

18. **(Deleted)**

19. **(Original)** The control module of claim 1 wherein said decision logic module accepts or rejects said applied stimulus based on a hierarchical order of the stimuli in said set.

20. **(Original)** The control module of claim 1 wherein said decision logic module accepts or rejects said applied stimulus based on said last-provided user-specified directive and a hierarchical order of the stimuli in said set.

21. **(Deleted)**

22. **(Currently Amended)** The ~~control module of claim 21~~ <u>arrangement of</u> <u>claim 1, wherein said decision logic module includes an 8-bit service line register and an</u> <u>8-bit protection line register, and</u> wherein said service line register has bits 4, 5, 6 and 7 permanently set to 0, where bit 7 is the most significant bit of a number stored in said service line register, and said protection line register has its bits 2, 6, and 7 permanently

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set to 0, where bit 7 is the most significant bit of a number stored in said protection line register.

**23. (Original)** A method for controlling whether a service line connected to a first I/O module is in an active mode, and a protection line connected to a second I/O module is in a standby mode, comprising the steps of:

receiving a stimulus that may cause a change in mode in said service line and in said protection line;

determining, based on the last-specified user directive, whether to accept or reject said stimulus;

if said step of determining concludes to accept said stimulus, setting or resetting at least one bit in a first or a second register, inclusively;

comparing a first number that corresponds to bits in said first register to a second number that corresponds to bits in said second register; and

setting said service line to a standby mode and said protection line to an active state when said first number is greater than said second number.

**24. (Original)** The method of claim **23** where said first register and said second register are 8 bits each.

**25. (Original)** The method of claim **23** wherein said step of setting bits is carried out in accordance with the table

| stimulus | bits set | |
|---|---|---|
| | second register | first register |
| Manual switch to make protection line active | Bit0=1 | Bit0=0 |
| Manual switch to make service line active | Bit0=0 | Bit0=1 |
| Signal degraded condition detected in service line | Bit1=1; Bit0=0 | Bit0=0 |
| Signal degraded condition cleared in service line | Bit1=0 | |
| Signal degraded condition detected in protection line | Bit0=0 | Bit1=1; Bit0=0 |

| | | |
|---|---|---|
| Signal degraded condition cleared in protection line | | Bit1=0 |
| Signal failed condition detected in service line | Bit2=1; Bit0=0 | Bit0=0 |
| Signal failed condition cleared in service line | Bit2=0 | |
| Forced switch directive from service to protection | Bit3=1 | Bit3=0 |
| Forced switch directive from protection to service | Bit3=0 | Bit3=1 |
| Signal failed condition detected in protection line | Bit3=0; Bit0=0 | Bit4=1; Bit3=0; Bit0=0 |
| Signal failed condition cleared in protection line | | Bit4=0 |
| Lockout | | Bit5=1 |
| Release | Bit2=0; Bit0=0 | Bit5=0; Bit3=0; Bit0=0 |

26. **(New)** An I/O module, designated an A module, including a line interface unit adapted to be connected to a type A line, a framer connected to the line interface unit, an ATM processing units interposed between the framer and an ATM port of said I/O module, which port is adapted to be connected to an ATM switch, and a processor coupled to the framer and the ATM processing unit, characterized in that:

said processing unit determines, based on information derived from said line interface unit, or from signals arriving at said ATM port, whether said framer should be closed, or opened, and when said processing unit determines that said framer should be open said processing unit sends a signal to said ATM port to close a framer another I/O module, designated a B module, which is physically distinct from said A module.

27. **(New)** The A-designated I/O module of claim 26 where said B module is connected to a type B line, where type A line and type B line carry signal from a common point.

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**28.** **(New)** The A module of claim **26** where said type A stands for a service signal line, and type B stands for a protection signal line, or vice versa.